

Remarks/Arguments:

This is a reply to the office action of January 12.

1. Amendment of the claims

In claims 24, 25 and 30 to 34, the references to claim 23 have been changed to references to claim 19. The features of claim 23 had already been incorporated into claim 19 with the last submission, as Examiner has correctly noticed. The amendments do therefore not add any new subject matter.

Independent claims 41 - 43 have been deleted. Therefore, claim 19 is now the only remaining independent claim.

2. Objections under 37 CFR 1.75(c) (section 7 in the Office Action)

The objection to claims 24 to 28 and 30 to 34 are overcome by the above mentioned amendments of claims 24, 25 and 30 to 34. These claims now all refer (directly or indirectly) to claim 19.

3. Novelty of claim 19

Novelty of claim 19 has not been questioned in the Office Action. Since claim 19 remains unchanged, there already exists agreement on the novelty of claim 19.

4. Non-obviousness of claim 19

The Examiner rejected claim 19 as unpatentable over Monzinger (WO 02/076706) in view of Staheli (US 6,838,123) and further in view of Rhodes, Jr. et al. (US 5,326,524). This rejection is traversed for the following reasons.

The Examiner acknowledges that Monzinger does not disclose that the rotating sizing die is heated to at least the melting point of the fiber coating (Section 18 in the Office Action). This heating has the technical effect that the coated fibers or rovings are transformed into a flowable state at the time when they are actually twisted by the die. On the contrary, in Monzinger, heating takes place in the heater 13 and in the passageway 20 as depicted in Figures 2 and 3. From this passageway 20, the coated fibers are passed about a guide bar 21 and to the exit die 22.

When arriving at this exit die 22, the coated fibers still have to be at such elevated temperature that the polymer has a sufficient flowability. This, however, increases the risk of the polymer dripping off the fibers on its way from the passageway 20 to the exit die 22 and also sticking to the guide bar 21. Monzinger does not provide any teaching how these problems could be overcome.

The Examiner concluded that it would have been obvious to a person of ordinary skill in the art to modify the process of Monzinger in view of Rhodes Jr. et al. On the other hand, the present claim 19 relates to coated fibers or rovings which are flexible at room temperature.

We request that the Examiner reconsider his conclusions for reasons set out below.

First, Rhodes relates to bending of rods (compare the title and the abstract), i.e. of a piece of material which is substantially rigid at room temperature. Therefore, Rhodes relates to a completely different technical field.

Second, Rhodes describes postforming the rod (compare column 1, lines 5 - 7, 41 - 45 and 61 - 65). In other words, this document relates to post-processing of an object (namely of an unbent rod), which could per se already be a final product. In contrast, the step of passing the fibers through a rotating sizing die according to present claim 19 is an integral part of the production process, without which no final product could be obtained.

Another distinction is that Rhodes discloses a heated die in the passage cited by examiner, but the die rotates. Rhodes discloses a heated die in the passaged cited by the examiner, but not that the heated die rotates. Instead, the fiber rovings entering the rod are rotated, or creels of thin strips of prepreg tape are rotated, prior to entering the die (Rhodes, column 6, lines 58 to 62). If Rhodes and Monzinger were combined, a person of ordinary skill in the art would have identified the exit die of Monzinger with the rotating parts in Rhodes and would have provided an additional heated, but stationary die. He would not have heated the rotating die in Monzinger. In short, the step in claim 19 of “heating the rotating sizing die” is not obvious from the references.

For these reasons, Rhodes would not have led a person of ordinary skill in the field of this invention from Monzinger to the invention now claimed.

We submit that claim 19 distinguishes the present invention from the prior art. The remaining claims all depend ultimately from claim 19 and are deemed allowable for the features they inherit from claim 19, in combination with the additional features each claim recites.

We believe the claims now presented are patentable over the prior art of record, and that this application is in condition for allowance.

Respectfully submitted,

/Charles Fallow/

Charles W. Fallow
Reg. No. 28,946

Shoemaker and Mattare, Ltd.
10 Post Office Road - Suite 100
Silver Spring, Maryland 20910

April 9, 2010